Amphenol®

Application Note

IAN-115





Amphe-PV H4 Plus™ Panel Mounted Connector

BACKGROUND

Photovoltaic (PV) installations are made up of solar modules daisy chained together through a series of connections. Our H4 line of connectors has been a market leading solution for this type of solar application. Once the modules are linked they can either be run to an inverter, or combiner box. In either situation a wire must be fed into an enclosure. There are two ways to accomplish this task. The panels can either be hardwired into the enclosure, which can present a longer installation time, and can be problematic for maintenance. The other way, is the enclosures can utilize a connectorized system.

PROBLEM

Current PV wire termination into an enclosure requires hardwiring through a cable gland. An interconnect solution that would allow the harness and the enclosure to be separated is required. Additionally, cable assemblies that were passing through a hard surface (like a PV module frame) need to have a means of allowing a simple connection or disconnection to facilitate assembly, or device removal.

AIO SOLUTION

The Amphe-PV H4 Plus™ Panel Mounted Connector in both male and female configurations provides a proven solution. Hardwire terminations can now be replaced with a simple low cost interconnect option. Amphe-PV H4 Plus™ Panel Mounted Connectors can provide a quick disconnection point for separating inverter and combiner box enclosures from the system. The use of a mated pair of Amphe-PV H4 Plus™ connectors consisting of a panel and inline interconnect allows for a low cost and easy to install solution. Amphe-PV H4 Plus™ Panel Mounted Connectors are UL and TÜV 1500V DC (class A) certified and meet NEC 2008 requirements. This economical product pays for itself in faster installation times, and makes system maintenance easier.